



**Department of  
Transportation**



# **Rehabilitation of the Wurts Street Bridge (PIN 8808.62)**

**Pre-Bid Meeting  
April 27, 2021**

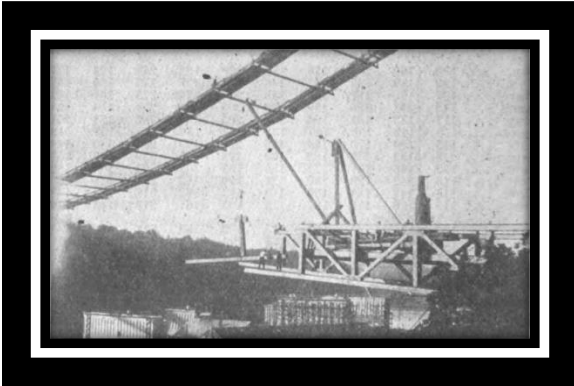
## Location and Notes

➡ Wurts St. bridge (BIN 1007350)



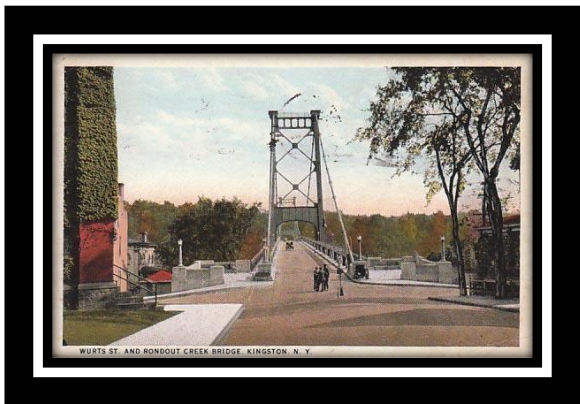
- ❑ a.k.a. Kingston-Port Ewen Bridge
- ❑ Crosses Rondout Creek (former D & H Canal), Dock St. and W. Strand St.
- ❑ Owned/maintained by NYSDOT
- ❑ Only suspension bridge in NYSDOT inventory
- ❑ AADT = 5103 vpd (2013)  
( $< 2\%$  heavy trucks – Posted)

# History of the Wurts St. Bridge



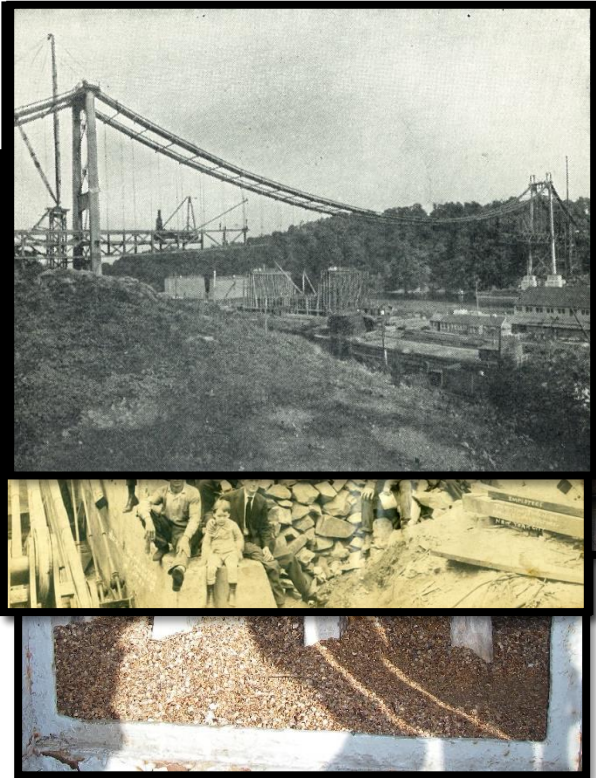
- ➔ 1922 - Construction complete
  - ❑ Final crossing to connect Rt. 9W
  - ❑ Replaced *Skillypot* chain ferry
- ➔ 1973 – Re-decking contract
  - ❑ Precast, post-tensioned panels
  - ❑ Floor system was rehabilitated
- ➔ 1979 – US Rt. 9W moved
  - ❑ Adjacent J.T. Loughran Bridge open

# History of the Wurts St. Bridge



- ➞ 1980 – Listed on Nat'l Register
  - ❑ Kingston-Port Ewen Suspension Br.
  - ❑ ID# 80002783
- ➞ 2014 – Maintenance contract
  - ❑ Repainted upper portion of towers
  - ❑ New asphalt overlay
  - ❑ Misc. steel repairs

# Unique Details of the Bridge



- ➔ Designed by Steinman & Robinson (St. Johns, Mt. Hope Bridges)
- ➔ Constructed by Terry & Tench (Williamsburg, Manhattan, Bear Mtn. Bridges)
- ➔ Continuous variable depth stiffening truss through towers
- ➔ Battered tower legs to clear stiffening truss
- ➔ Additional cable strands in back stay

# Changes from previous letting

- ➔ Right of Way acquisitions complete
- ➔ Concrete traffic barrier changed to steel rail on curb
- ➔ Bridge currently closed due to flagged u-bolts and fascia stringers
- ➔ Suspender connection revised and gatherer eliminated
- ➔ Deck replacement staging revised and steel work eliminated

# Construction Detour



- ➔ Construction schedule
  - ❑ Summer 2021 – Start
  - ❑ Fall 2023 – Completion
- ➔ Bridge closed for duration of construction (~ 2 years)
  - ❑ Detour over Rt. 9W bridge
- ➔ Short-term closure at Wurts St. and Abeel St.
- ➔ West Strand St. remains open

# Right of Way Issues



## ➞ Kingston Tower

- ❑ Adjacent to West Strand Street, parking lot, and pedestrian path along the Rondout Creek
- ❑ Pedestrian path and access to kayak dock must be maintained
- ❑ Area available to contractor for staging under the bridge

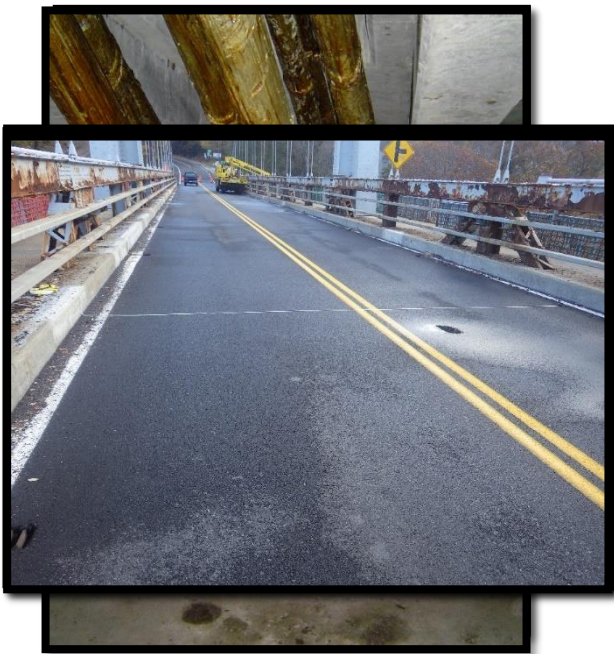
# Right of Way Issues



- ➔ Abeel Street
  - ❑ Proximity to garage
- ➔ Navigation channel
  - ❑ Must remain operational throughout construction
  - ❑ Refer to special notes in contract for USCG coordination

# Rehabilitation

- ➔ Replace all suspenders
- ➔ Reconstruct anchorages and install dehumidification system
- ➔ Complete repainting of structure (2014 Maintenance Contract repainted upper tower and cable)
- ➔ Replace sidewalk and railing
- ➔ Replace roadway lighting
- ➔ Steel repairs and strengthening
- ➔ Replace roadway deck



# Rehabilitation

- ➔ In-kind rehabilitation
- ➔ Restore structural capacity
  - ❑ Currently closed and unsafe
  - ❑ Raise Posting to 20 tons
  - ❑ Originally designed for 10 ton truck
  - ❑ Safe for emergency vehicles, buses
  - ❑ Not intended for heavy trucks
- ➔ Few visual changes
  - ❑ Sidewalk width (ADA std's)
  - ❑ Roadway lighting (NYSDOT std's)

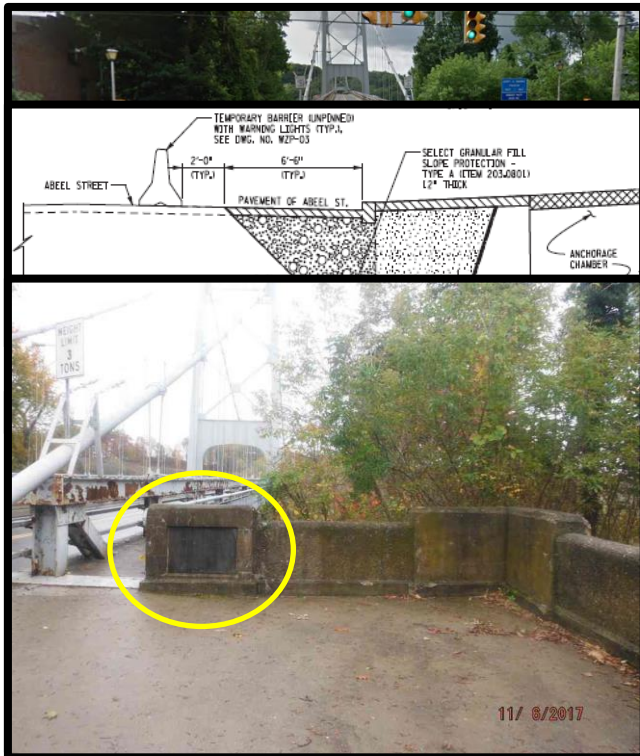


# Load Restrictions



- ➔ Bridge currently closed.
  - ❑ U-bolts and fascia stringers unsafe to carry live load
  - ❑ Posted for 3 Tons in 2014
- ➔ Construction loads limited to 20 tons plus 1000 lb/ft total
  - ❑ U-bolts and fascia stringers unsafe prior to repair.
  - ❑ Axle configurations for proposed construction live load shall be submitted for review and approval

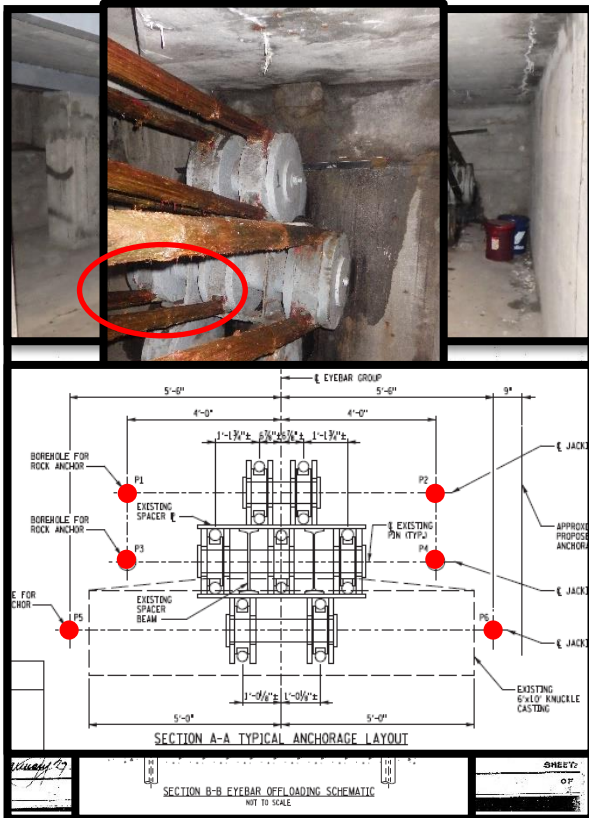
# Anchorage



- ➔ Partial demolition of chamber and excavation for access to perform eyebar strengthening
- ➔ Tree clearing by NYSDOT
- ➔ Several underground utilities on Abeel Street
- ➔ Waterproofing applied to exterior walls of chambers
- ➔ Dehumidification of chambers
- ➔ Replacement of parapet
- ➔ Remove, store, reinstall existing cornerstone

# Eyebars

## Strengthening



### ➔ Rock Anchors

- ☐ Main cable strands
- ☐ Avoid deviation casting

### ➔ Production Anchors

- ☐ Not feasible to abandon a defective permanent anchor-geometric constraints of jacking beams

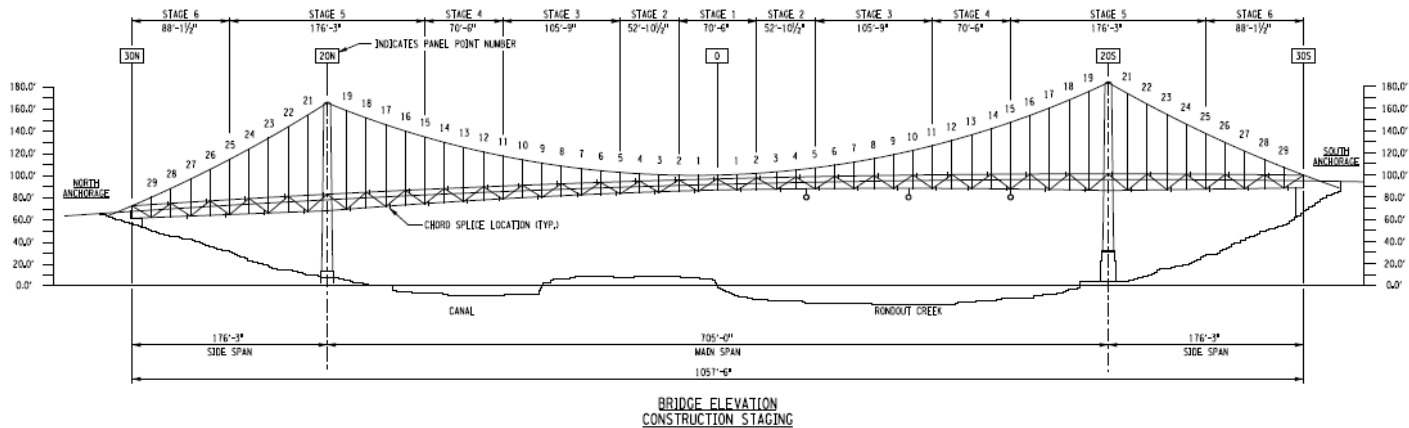
### ➔ Monitoring of eyebars

- ☐ Real-time verification of load transfer

### ➔ Lock-off load AOB

- ☐ Center strand could require multiple attempts

# Deck Replacement



- ➡ Structural analysis not required if outlined procedure is followed
- ➡ Demolition plan submittal required

# Deck Replacement



- ➔ Deck removal
- ➔ Stage limits
  - ❑ Deck, curb and sidewalk must be completed prior to moving to next stage
- ➔ Chromium rebar
- ➔ Existing deck is precast with an asphalt overlay
  - ❑ Poor condition



# Steel Repairs



- ➔ Shear studs
  - ❑ Stringers and floorbeams
- ➔ Replace
  - ❑ Stringers (approx. 50%)
  - ❑ Select wind laterals
  - ❑ Cantilevered sidewalk supports
- ➔ Contractor to design temporary support system
- ➔ Miscellaneous steel repairs
  - ❑ No original shop drawings available

# Tower Anchor Bolts



- ➡ Replace in existing location
- ➡ Core out existing 8' bolt through connection to tower
- ➡ Two (2) bolts replaced under 2014 contract

# Truss Bearing Anchor Bolts



- ➡ Temporary support end floorbeam
- ➡ Contractor to verify existing bracket capacity
- ➡ Pedestals reconstructed
- ➡ Existing bearings to remain (clean and paint)

# Tower Link



- ➡ Suggested procedure
  - ❑ Deck remains in place while link is removed
  - ❑ No suspenders removed during replacement
- ➡ Includes replacement of link girder and gusset plates
- ➡ Non-metallic bushings
  - ❑ Recommend fabricating extra to allow for errors during installation

# Gusset Plates



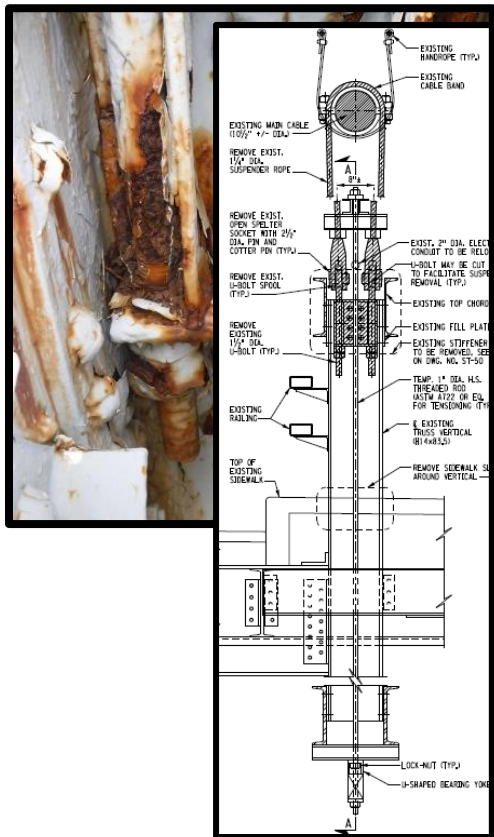
- ➔ Suggested procedure
  - ❑ Deck remains in place while link is removed
  - ❑ No suspenders removed during gusset replacement
  - ❑ No construction live load during gusset replacement (due to one-at-a-time replace)
- ➔ No transverse floorbeam in the way

# Suspender Replacement



- ➡ Removal of all existing connection hardware
- ➡ One suspender at a time
- ➡ No temporary suspender required to support dead load
- ➡ Suspender connection designed to accommodate rope tensioning
- ➡ No original shop drawings available

# U-bolt Repairs



- ➔ U-bolts unsafe to carry live load at 23 suspender locations
- ➔ Must be repaired before construction loads can be permitted
- ➔ Repair installs temporary system used for suspender offloading
- ➔ Reused to install permanent suspenders
- ➔ This scheme is suggested, contractors engineer to design

# Inspection Access



- ➔ New platforms to provide tower access from main cables
- ➔ New stanchions require removal/replacement of two cable band bolts to install
- ➔ New hand ropes require installation of steel frame in saddle housing

# Painting



- ➔ Comprehensive cleaning and painting
- ➔ Main cables and towers above the roadway level were painted in 2014
- ➔ Includes towers below roadway, stiffening truss, end bearings, anchorage eyebars, tower saddle
- ➔ Cleaning of cable band drains to allow drainage of entrapped water

# Decorative Lighting



- ➔ Color changing necklace and tower flood lighting fixtures
- ➔ Decorative lighting controller with programmable light shows
- ➔ Independent from the dehumidification and roadway lighting control system
- ➔ Capable of local and remote access

# Dehumidification

- ➔ Programmable Logic Controller (PLC) provided for full automation of dehumidifiers and control of roadway lighting
- ➔ Local and remote monitoring
- ➔ Historical and live data monitoring including
  - ❑ Dehumidifier run times
  - ❑ Anchorage chamber temperature and humidity
  - ❑ Anchorage chamber door open/close indication
- ➔ New anchorage chamber maintenance lighting and receptacles
- ➔ Network service connection to NW anchorage

# Utility Coordination – Kingston Side

- ➔ Separate utility services will be provided on both approaches
- ➔ Central Hudson
  - ❑ Relocate two utility poles
  - ❑ Install new 200A, three-phase electrical service
  - ❑ Install new meters
- ➔ Contractor
  - ❑ Install first 10' of conductors and conduit from new bridge service equipment to new pole
  - ❑ Install new service meter sockets and service entrance disconnect switches

# Utility Coordination – Esopus Side

## ⇒ Central Hudson

- ☐ Replace two poles and install 200A, three-phase electric service
- ☐ Install new meters

## ⇒ Contractor

- ☐ Install new 45' bridge service pole
- ☐ Install new service meter sockets and service entrance disconnect switches

# Environmental

## ➔ Ground and Waterway Protection

- ❑ Refer to notes and contract items
- ❑ Rondout Creek – Class C Stream (no work in stream)
- ❑ Containment of paint waste and debris (e.g. suspender rope removal, etc.)

## ➔ Asbestos Abatement

- ❑ Caulking at cable collar (approx. 38 LF)
- ❑ Existing conduits not ACM

## ➔ Tree Cutting

- ❑ Completed by NYSDOT



# Schedule

- Pre-Bid meeting - April 27, 2021
- Project letting - June 1, 2021
- Anticipated Best Value designation - June 21, 2021
- Anticipated award date - August 1, 2021
- Substantial completion - No later than July 1, 2023
- Construction completion - No later than October 9, 2023

# Best Value-Contacts

- ➔ Contacts/Questions, Designated Contacts
  - Contacts are listed in the Important Bidder Information in the contract proposal (inside cover of Book 2)
  - Project-related technical questions or comments related to the Best Value Submission up to letting must be submitted through the Contract Documents tab of the Department's website at: <https://www.dot.ny.gov/doing-business/opportunities/const-notice>

# Best Value-Contacts

- After letting, communication on this procurement can be made to the Department's designated representative listed below

**Chris Nebral**

**Re: "Wurts Street Bridge Rehabilitation – Structural Steel Replacements and Repairs, Anchor Repairs, & Concrete Repairs, D264534, PIN 8808.62"**

Office of Contract Management

New York State Department of Transportation

50 Wolf Road, 6th Floor

Albany, NY 12232

Email: [Chris.Nebral@dot.ny.gov](mailto:Chris.Nebral@dot.ny.gov)



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Transportation**

# Best Value-Selection Scoring Criteria

Best Value Selection Scoring Criteria		
	Description	Final Weight of Cost
<b>Cost (50%)</b>	Cost Bid Proposal	50 points
	Description	Final Weight of Technical
<b>Technical (50%)</b>	Technical Submission	50 points
	Schedule	15 points
	Construction Approach	15 points
	Experience & Past Performance	20 points
<b>Total</b>		100 points

The minimum acceptable combined score for the above technical submission criteria is 30 points (60% of 50 potential points). Technical submissions scoring less than this will be removed from further consideration.

# Questions?

